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ABSTRACT

The Classroom Attitude Observational Schedule (CAOS) is designed to detect pattern shifts in a classroom during the absence of controlling adults. It is concerned with the independent learner who will continue school related tasks in a socially acceptable manner without supervision. The CAOS recording form notes activities and inappropriate behaviors as they occur; ideally the children should be controlled by their own interests in the activities and materials in the classroom. CAOS was field tested in schools using the Tucson Early Education Model (TEEM), a program offering a balanced program of child selected and teacher assigned activities, and results, presented here in graphs, were relayed to Follow Through Directors and TEEM field staff so that attention may be given to those aspects of the TEEM touched by CAOS and the system may be further refined. (RC)

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OBSERVATIONAL FINDINGS REGARDING INDEPENDENT LEARNING BEHAVIOR (The Classroom Attitude Observational Schedule)

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OBSERVATIONAL FINDINGS REGARDING INDEPENDENT LEARNING BEHAVIOR

The Classroom Attitude Observational Schedule (CAOS)

Background

The Tucson Early Education Model (TEEM) attempts to offer a balanced program of child selected and teacher assigned activities. Within the teacher assigned activities, children are provided options in order to provide for differences in interest and ability. The TEEM expouses four major goal areas: development of language competence, an intellectual base, a motivational base, and societal arts and skills.

The Classroom Attitude Observation Schedule (CAOS) addresses itself to the motivational base goal area which is defined as a collection of attitudes and behavioral characteristics related to productive social involvement. These include positive attitudes toward school and toward the learning process, an appreciation for learning and a willingness to persist at learning tasks, and an expectation of success and a willingness to change (Arizona Center for Educational Research and Development, 1974).

Inherent in that definition is the issue of the independent learner. Walberg and Thomas (1972) made a concerted effort to more clearly define open education and state that "implicit in the approach is a view of the child, especially in the primary grades, as a significant decision-maker in determining the direction, scope, means and pace of his education." (p. 198). Operationally defined, one facet of this decision-maker is one who will continue school related tasks in a socially acceptable manner, without pressure or presence of controlling adults.

Procedure

The classroom Attitude Observation Schedule has been designed to detect pattern shifts in a classroom during the absence of a teacher and all other "controlling" adults. In order to establish patterns, a period of twelve minutes is spent by the observer recording activities of adults and children; twelve minutes recording activities of children during absence of adults (with the exception of the observer); and twelve minutes again recording both adult and child activities, with adults returned to the room. The total observation period consists of thirty-six minutes.

The recording form and procedure for recording activities was borrowed from the Classroom Observation Procedure developed at Stanford Research Institute (SRI 1971) for national Headstart and Follow Through evaluation. The portion of their procedure which was used, the Classroom Checklist, involves visually scanning the room and recording the location of adults and children into one of eighteen mutually exclusive activity categories. SRI used this to describe the classroom before they began a five minute interaction observation; CAOS used it at two-minute intervals eighteen times during a thirty-six minute period. In addition to noting activities, inappropriate behaviors are also recorded as they occur. Those behaviors recorded are hitting, yelling, interfering, leaving the room without permission, and throwing. A copy of the recording form is attached (See figure 1). The recording is made in the form of numbers of children and adults observed engaging in an activity. Since the same type of activity may take place in several areas of the classroom, an individual cell may contain several numbers. This then will show for any two minute period how children grouped themselves, as well as how many were engaged in any type of activity, and whether an adult was working with them.

Field-testing the Procedure

CAOS was developed and field tested as part of the national Headstart Planned Variation Study. The Tucson Early Education Model (TEEM) selected one of the three communities using the model at Headstart level for an intensive evaluation.

Classrooms used for the sample were the six classrooms in the community using the TEEM and two classrooms using locally implemented programs for comparison. The time period sampled was that of child self-selection, whenever that occurred during the school day. This is the period during the day in which the child has responsibility for the organization of his own activities around available materials and space (Arizona Center for Educational Research and Development, 1974).

Each classroom was observed once in the spring of 1972. A number of variables were analyzed, such as grouping patterns, activities chosen, and inappropriate behavior. Inappropriate behavior was the only variable which significantly changed while the teacher was absent from the room. The difference in levels of inappropriate behavior during the teacher absent phase between TEEM classrooms and comparison classrooms was statistically significant ($p<.05$). For greater detail of the findings in this study see Goldupp (1972) and Rentfrow, Durning, Conrad and Goldupp (1972).

Since the procedure appeared sensitive to changes in the classroom control system, the study was expanded. In the fall of 1972 and spring of 1973 forty classrooms using the TEEM in Follow Through were observed. The same forty classrooms were observed both fall and spring. The sample of classrooms consisted of twenty first grade and twenty third grade, in four different communities. The classrooms were randomly selected from lists provided by each of the four communities.

Observer Agreement

Five observers were trained for the forty classroom study. A regular schedule for observer agreement checks was maintained during the field work. Double observations were made in seven of the forty classrooms during the fall and eight during the spring. Each observer coded with another observer at least twice during fall and during spring.

The method used for calculation of observer agreement was Scott's "pi" coefficient (Scott, 1955). In both fall and spring, Scott's "pi" was calculated for each twelve-minute segment during which observers were paired. These were converted to Fisher's z', averaged, and converted back to Scott's "pi". Overall agreement for the fall was .82 and for the spring .91.

Results

As in the earlier Headstart study, the most graphic results appeared in the area of inappropriate behavior (Examine Figures 2 and 3). The ideal would be a line that begins at 0 and remains there throughout all three observation phases. This, in terms of our hypothesis, means that the children are not under total control of the teacher but rather are controlled by their own interest in the activities and materials.

Figure 2 demonstrates that levels of inappropriate behavior took a jump during teacher absence. This jump decreases from fall to spring, indicating movement on the part of the children toward the ideal. Figure 2 represents the twenty first grade classrooms observed and Figure 2 the third grade classrooms. Fall levels of inappropriate behavior at third grade were lower than spring first grade. This appears to demonstrate a continued move toward independence with increased time in the program.

Grade level summaries within each of the four communities present much the same type of picture.

Figure 4 demonstrates another approach to analyzing data collected with the CAOS. This graph looks only at the two adult present phases. The two phases have been averaged and the eighteen observation categories have been collapsed into five activity types (See Figure 5).

One major interest here is in the percentage of adult time that is spent in activities in which children are also engaged.

Are adults spending the bulk of their time with children? The solid bar represents percentage of adult time in the activity type. The closer these pairs of bars are to matching in height, the more closely we come to the ideal of perfect correspondence between adult and child participation. While perfect correspondence is totally unrealistic, graphs for individual communities do show closer correspondence over the course of the school year.

Many of the graphs demonstrate less adult time in "management" for third grade children than for first grade children. While a certain amount of time in "management" is necessary for the teacher, particularly the teachers of younger children, a question to ask is whether or not the amount of time spent in "management" is reasonable or is it taking away from interaction with the children.

Another area of interest in the graphs is in the activity types children are choosing. Does there seem to be a good balance between "Traditional Academic" and "Cognitive Learning" activity types? Many of the graphs do demonstrate a reasonably good balance and an improved balance over the course of the school year.

Uses

These are all data that give better descriptions of TEEM classrooms. Analysis is continuing in order to relate CAOS variables to organizational aspects of TEEM

implementation and achievement data.

Data discussed earlier have been relayed to Follow Through Directors of and TEEM field staff who service communities involved in the study. In this way, attention may be given to those aspects of the TEEM touched by CAOS and the system may be further refined.

As factor analysis and correlation matrices are further analyzed, this too will be transmitted to those responsible for program implementation in order to continue growth.

CLASSROOM ATTITUDE OBSERVATION SCHEDULE (CAOS)

Teacher _____ School _____ Community _____ Date _____ Observer _____ page ___ of 3
Time Started _____

	N.I.	I.A.	N.I.	I.A.	N.I.	I.A.	N.I.	I.A.	N.I.	I.A.	N.I.	I.A.	Total
A. Snack Lunch													
B. Group time													
Story/Sing Dance/Music													
C. Arith/Math Numbers													
Reading/Alpha Lang. Devel.													
D. Soc. Studies Geography													
Science Nat. World													
E. Games Puzzles													
F. Arts Crafts													
Sew/Cook Pound/Saw													
G. Blocks Trucks													
Dolls/Dress'p Playhouse													
H. Play													
I. Transitional activities													
J. Classroom management													
K. Out of room													
L. Observing Other													
M. Wandering													
Totals													

N.I. = Number Involved
I.A. = Inappropriate Activity

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(75% reduction)

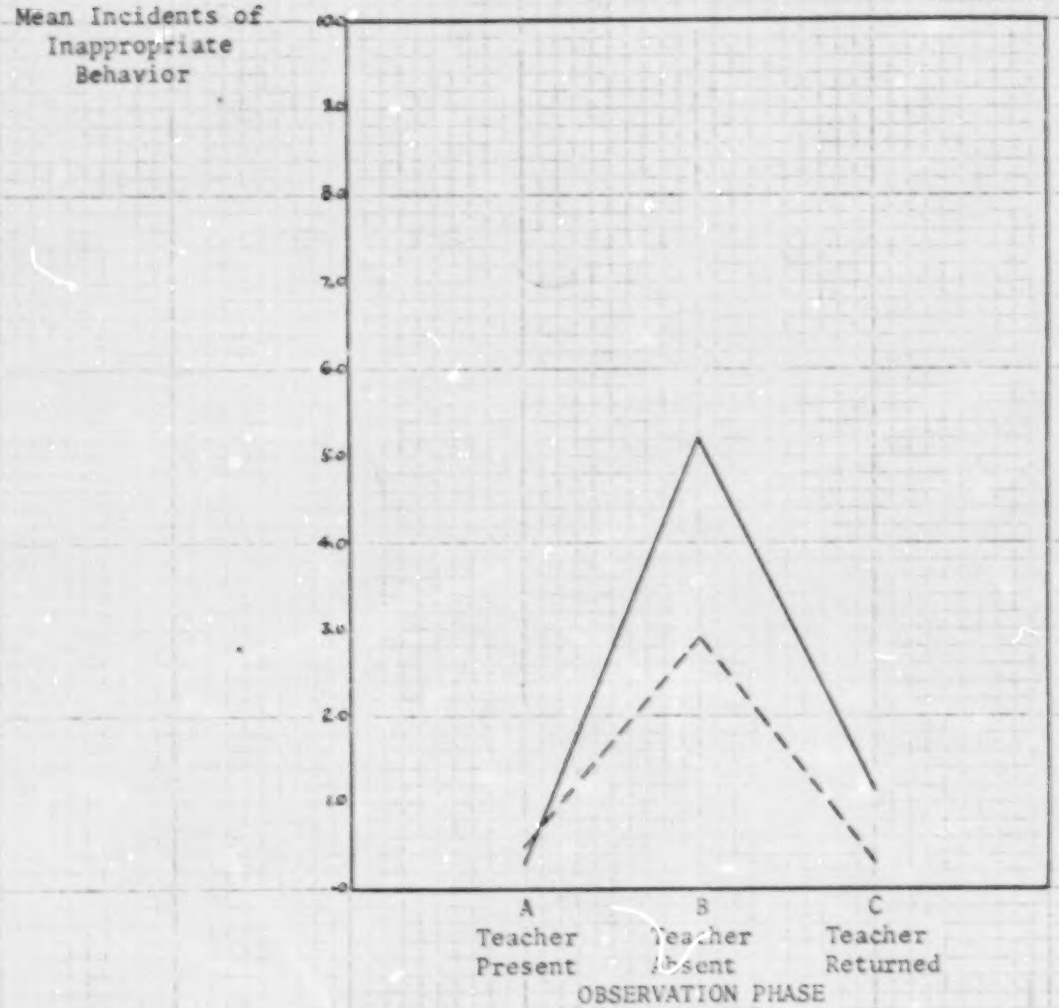
Figure 1. CAOS Recording Form

Classroom Attitude Observation Schedule
Fall 1972 and Spring 1973

Figure 2

INCIDENTS OF INAPPROPRIATE BEHAVIOR
BY OBSERVATION PHASE

All Communities
Grade Level 1



Classroom Attitude Observation Schedule
Fall 1972 and Spring 1973

Figure 3

INCIDENTS OF INAPPROPRIATE BEHAVIOR
BY OBSERVATION PHASE

All Communities
Grade Level 3

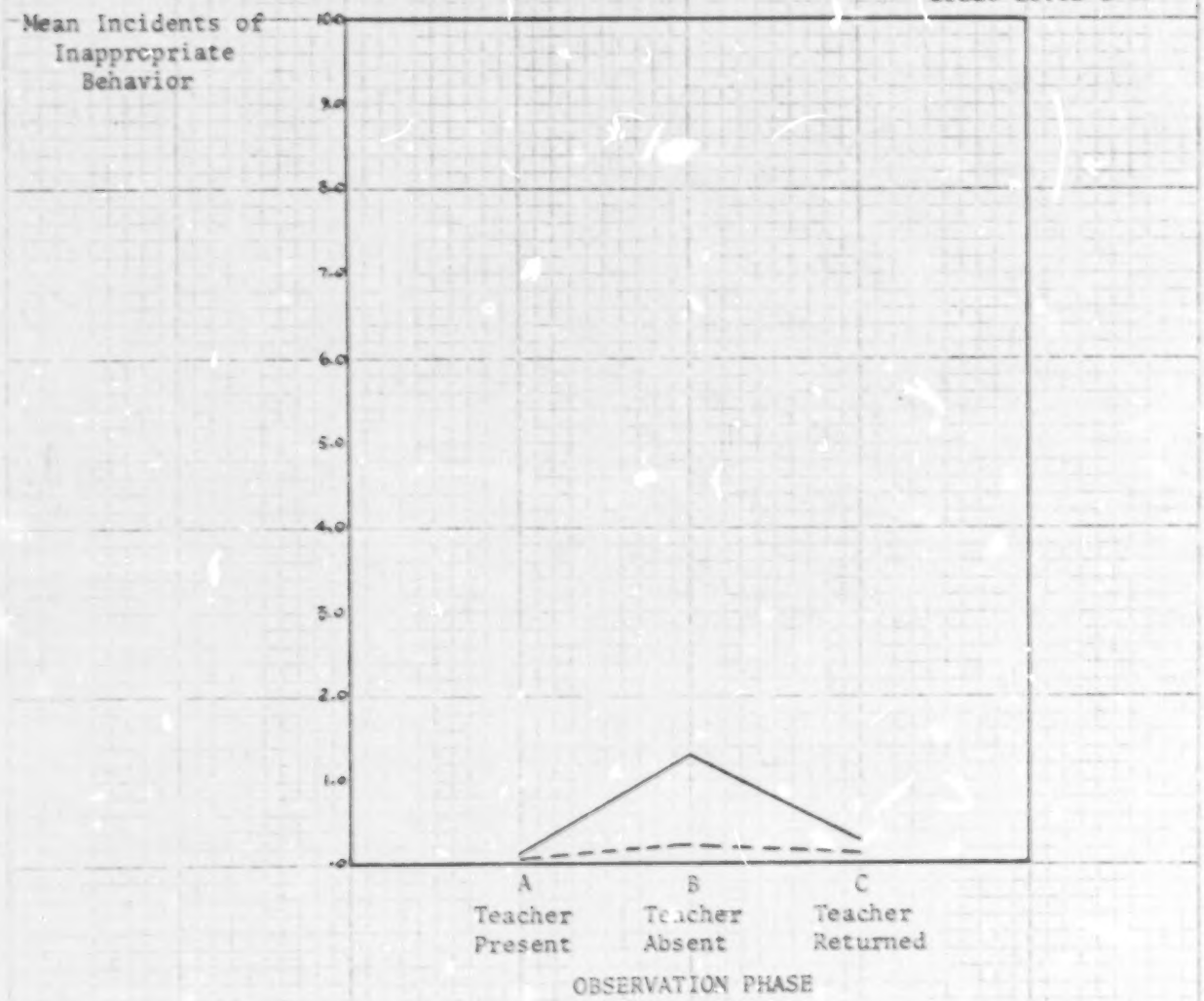


Figure 4

Adult Vs. Child Participation by Time of CAOS Observation and by Activity Type

All Communities
Grades 1 and 3

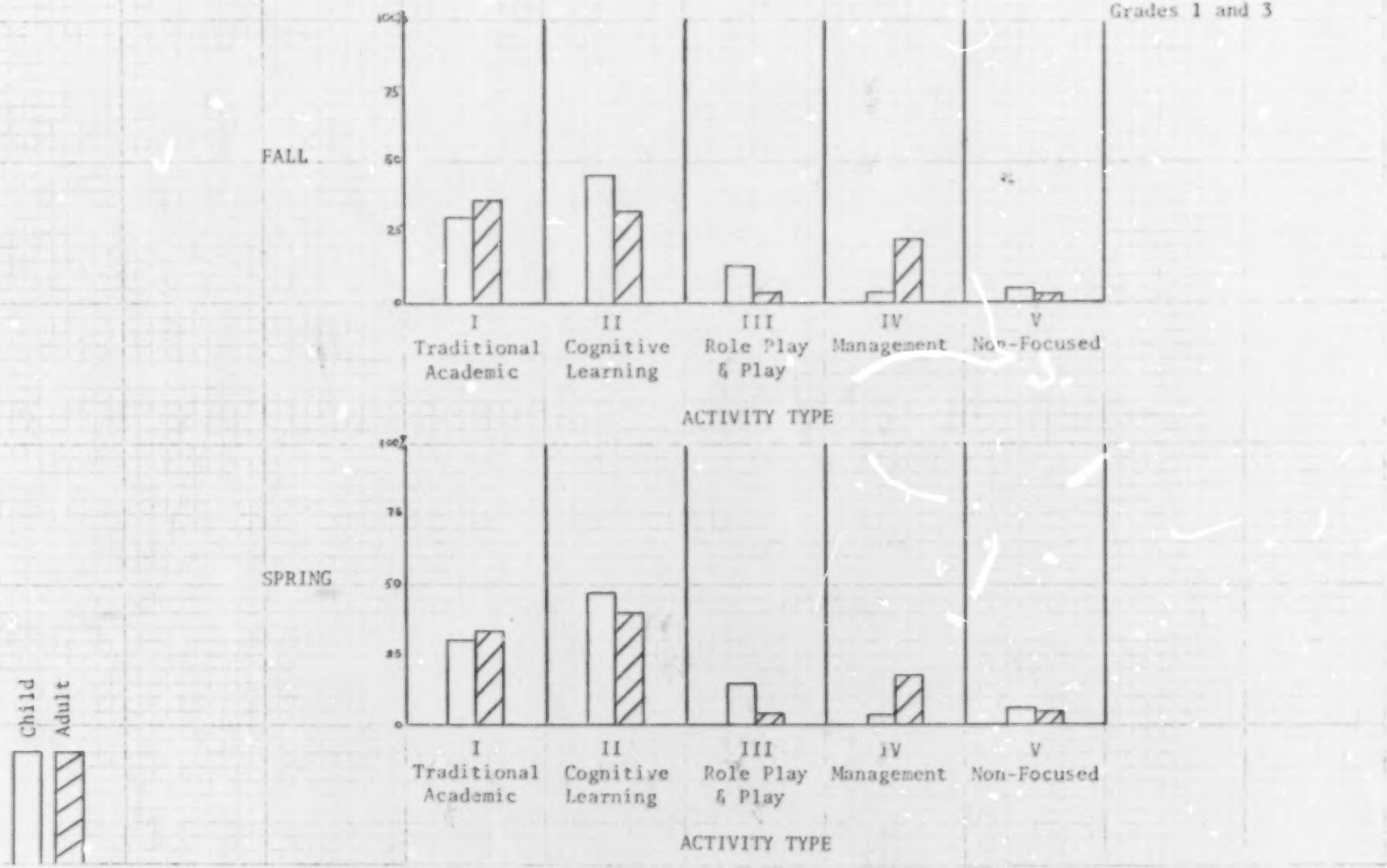


Figure 5

CAOS SUMMARY CATEGORIES

Activity Types

I. Traditional Academic

Arithmetic/Math/Numbers
Reading/Alphabet/Language Development
Social Studies/Geography
Science/Natural World

II. Cognitive Learning

Story/Singing/Dance/Music
Games/Puzzles
Arts/Crafts
Sew/Cook/Pound/Saw

III. Play and Role Play

Blocks/Trucks
Dolls/Dressup/Playhouse
Play

IV. Management

Management

V. Non-focused

Transitional
Out of room
Wandering
Observing

VI. Total Group
(Not used for graphs - rarely observed)

Group time
Snack/Lunch

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